

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Keisha Douglas

Timestamp: [year=2009; month=2; day=17; hr=17; min=11; sec=16; ms=383;]

=====

Application No: 10599313 Version No: 2.0

Input Set:**Output Set:**

Started: 2009-01-28 19:40:36.865
Finished: 2009-01-28 19:40:38.517
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 652 ms
Total Warnings: 35
Total Errors: 0
No. of SeqIDs Defined: 35
Actual SeqID Count: 35

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

Input Set:

Output Set:

Started: 2009-01-28 19:40:36.865
Finished: 2009-01-28 19:40:38.517
Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 652 ms
Total Warnings: 35
Total Errors: 0
No. of SeqIDs Defined: 35
Actual SeqID Count: 35

Error code

Error Description

This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> POSCO
POSTECH Foundation
CHA, Hyung Joon
HWANG, Dong Soo

<120> Mussel Bioadhesive

<130> 20010-06USA

<140> 10599313

<141> 2009-01-28

<150> US 60/556,805

<151> 2004-03-26

<150> PCT/KR2005/000888

<151> 2005-03-25

<160> 35

<170> PatentIn version 3.5

<210> 1

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 1

ggcctgcagc agttctgaag aatacaaggg

30

<210> 2

<211> 29

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 2

gtagatctat acgccggacc agtgaacag

29

<210> 3

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> primer

<400> 3
cttgtatattt ccgctgtttt t 21

<210> 4
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 4
aaaaacagcg gaaaatacaa g 21

<210> 5
<211> 228
<212> DNA
<213> Artificial Sequence

<220>
<223> Mytilus galloprovincialis

<400> 5
agttctgaag aatacaaagg tggttattac ccaggcaata cttaccacta tcattcaggt 60
ggtagttatc acggatccgg ctatcatgga ggatataagg gaaagtatta cggaaaggca 120
aagaaatact attataaata taaaaacagc ggaaaataca agtatctgaa gaaagctaga 180
aaataccata gaaaggggta caagaagtat tatggagggtg gtagcagt 228

<210> 6
<211> 76
<212> PRT
<213> Artificial Sequence

<220>
<223> Mytilus galloprovincialis

<400> 6
Ser Ser Glu Glu Tyr Lys Gly Gly Tyr Tyr Pro Gly Asn Thr Tyr His
1 5 10 15
Tyr His Ser Gly Gly Ser Tyr His Gly Ser Gly Tyr His Gly Gly Tyr
20 25 30
Lys Gly Lys Tyr Tyr Gly Lys Ala Lys Lys Tyr Tyr Tyr Lys Tyr Lys
35 40 45
Asn Ser Gly Lys Tyr Lys Tyr Leu Lys Lys Ala Arg Lys Tyr His Arg

50

55

60

Lys Gly Tyr Lys Lys Tyr Tyr Gly Gly Gly Ser Ser
 65 70 75

<210> 7

<211> 180

<212> DNA

<213> Artificial Sequence

<220>

<223> mytilus edulis

<400> 7

gctaaaccgt cttaccgcc gacctacaaa gcaaaaccct cgtaccacc gacttataag 60

gctaaacctta gctatccacc tacgtacaaa gctaaaccgt cttaccgcc gacttacaaa 120

gcaaaaccgt cctaccctcc gacctataag gctaaaccga gttaccccc gacttacaaa 180

<210> 8

<211> 60

<212> PRT

<213> Artificial Sequence

<220>

<223> mytilus edulis

<400> 8

Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro
 1 5 10 15

Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys
 20 25 30

Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr
 35 40 45

Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys
 50 55 60

<210> 9

<211> 411

<212> DNA

<213> Artificial Sequence

<220>

<223> Bioadhesive protein (mgfp-150)

<400> 9
gctaaaccgt cttacccgcc gacctacaaa gcaaaaccct cgtaccacc gacttataag 60
gctaaaccta gctatccacc tacgtacaaa gctaaaccgt cttacccgcc gacttacaaa 120
gcaaaaccgt cctaccctcc gacctataag gctaaaccga gttacccccc gacttacaaa 180
agttctgaag aatacaaggg tggttattac ccaggcaatt cgaaccacta tcattcaggt 240
ggtagttatc acggatccgg ctaccatgga ggatataagg gaaagtatta cggaaggca 300
aagaaatact attataaata taaaacagc ggaaaataca agtatctaaa gaaagctaga 360
aaataccata gaaagggtta caagaagtat tatggaggta gcagtgaatt c 411

<210> 10

<211> 137

<212> PRT

<213> Artificial Sequence

<220>

<223> Bioadhesive protein(mgfp-150)

<400> 10

Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro
1 5 10 15

Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys
20 25 30

Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr
35 40 45

Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ser Ser Glu Glu
50 55 60

Tyr Lys Gly Gly Tyr Tyr Pro Gly Asn Ser Asn His Tyr His Ser Gly
65 70 75 80

Gly Ser Tyr His Gly Ser Gly Tyr His Gly Gly Tyr Lys Gly Lys Tyr
85 90 95

Tyr Gly Lys Ala Lys Lys Tyr Tyr Tyr Lys Tyr Lys Asn Ser Gly Lys
100 105 110

Tyr Lys Tyr Leu Lys Lys Ala Arg Lys Tyr His Arg Lys Gly Tyr Lys
115 120 125

Lys Tyr Tyr Gly Gly Ser Ser Glu Phe
130 135

<210> 11
<211> 411
<212> DNA
<213> Artificial Sequence

<220>
<223> Bioadhesive protein(mgfp-051)

<400> 11
agttctgaag aatacaaggg tggttattac ccaggcaatt cgaaccacta tcattcaggt 60
ggtagttatc acggatccgg ctaccatgga ggatataagg gaaagtatta cggaaggca 120
aagaaatact attataaata taaaaacagc ggaaaataca agtatctaaa gaaagctaga 180
aaataccata gaaaggggta caagaagtat tatggaggta gcagtgaatt cgctaaaccg 240
tcttaccgcg cgacctacaa agcaaaaccc tcgtaccac cgacttataa ggctaaacct 300
agctatccac ctacgtacaa agctaaaccg tcttaccgcg cgacttataa agcaaaaccg 360
tcctaccctc cgacctataa ggctaaaccg agttaccccc cgacttataa a 411

<210> 12
<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Bioadhesive protein(mgfp-051)

<400> 12

Ser Ser Glu Glu Tyr Lys Gly Gly Tyr Tyr Pro Gly Asn Ser Asn His
1 5 10 15

Tyr His Ser Gly Gly Ser Tyr His Gly Ser Gly Tyr His Gly Gly Tyr
20 25 30

Lys Gly Lys Tyr Tyr Gly Lys Ala Lys Lys Tyr Tyr Tyr Lys Tyr Lys
35 40 45

Asn Ser Gly Lys Tyr Lys Tyr Leu Lys Lys Ala Arg Lys Tyr His Arg
50 55 60

Lys Gly Tyr Lys Lys Tyr Tyr Gly Gly Ser Ser Glu Phe Ala Lys Pro
65 70 75 80

Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr
85 90 95

Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr
100 105 110

Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala
115 120 125

Lys Pro Ser Tyr Pro Pro Thr Tyr Lys
130 135

<210> 13

<211> 591

<212> DNA

<213> Artificial Sequence

<220>

<223> Bioadhesive protein(mgfp-151)

<400> 13

gctaaaccgt cttaccgcc gacctacaaa gcaaaaccct cgtaccacc gacttataag 60

gctaaaccta gctatccacc tacgtacaaa gctaaaccgt cttaccgcc gacttacaaa 120

gcaaaaccgt cctaccctcc gacctataag gctaaaccga gttaccccc gacttacaaa 180

agttctgaag aatacaaggg tggttattac ccaggcaatt cgaaccacta tcattcaggt 240

ggtagttatc acggatccgg ctaccatgga ggatataagg gaaagtatta cggaaggca 300

aagaaatact attataaata taaaaacagc ggaaaataca agtatctaaa gaaagctaga 360

aaataccata gaaagggtta caagaagtat tatggaggta gcagtgaatt cgctaaaccg 420

tcttaccgc cgacctacaa agcaaaacc tcgtaccac cgacttataa ggctaaacct 480

agctatccac ctacgtacaa agctaaaccg tcttaccgc cgacttacia agcaaaaccg 540

tcctaccctc cgacctataa ggctaaaccg agttaccccc cgacttacia a 591

<210> 14

<211> 197

<212> PRT

<213> Artificial Sequence

<220>

<223> Bioadhesive protein(mgfp-151)

<400> 14

Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro
1 5 10 15

Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys
20 25 30

Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr
35 40 45

Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ser Ser Glu Glu
50 55 60

Tyr Lys Gly Gly Tyr Tyr Pro Gly Asn Ser Asn His Tyr His Ser Gly
65 70 75 80

Gly Ser Tyr His Gly Ser Gly Tyr His Gly Gly Tyr Lys Gly Lys Tyr
85 90 95

Tyr Gly Lys Ala Lys Lys Tyr Tyr Tyr Lys Tyr Lys Asn Ser Gly Lys
100 105 110

Tyr Lys Tyr Leu Lys Lys Ala Arg Lys Tyr His Arg Lys Gly Tyr Lys
115 120 125

Lys Tyr Tyr Gly Gly Ser Ser Glu Phe Ala Lys Pro Ser Tyr Pro Pro
130 135 140

Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro
145 150 155 160

Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr
165 170 175

Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr
180 185 190

Pro Pro Thr Tyr Lys
195

<210> 15

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<223> construct for expression of Bioadhesive protein(mgfp-5) in pMDG05 vector

<400> 15

atgggggggtt ctcatcatca tcatcatcat ggtatggcta gcatgactgg tggacagcaa 60

atgggtcggga ctctgtacga cgatgacgat aaggatcgat ggggatccga gctcgagatc 120

tgcagcagtt ctgaagaata caaggggtggt tattaccag gcaattcgaa ccactatcat 180

tcaggtggta gttatcacgg atccggctac catggaggat ataagggaaa gtattacgga 240

aaggcaaaga aatactatta taaatataaa aacagcggaa aatacaagta tctaaagaaa 300

gctagaaaat accatagaaa gggttacaag aagtattat 339

<210> 16

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> Bioadhesive recombinant protein expressed in pMDG05 vector

<400> 16

Met Gly Gly Ser His His His His His His Gly Met Ala Ser Met Thr
1 5 10 15

Gly Gly Gln Gln Met Gly Arg Thr Leu Tyr Asp Asp Asp Asp Lys Asp
20 25 30

Arg Trp Gly Ser Glu Leu Glu Ile Cys Ser Ser Ser Glu Glu Tyr Lys
35 40 45

Gly Gly Tyr Tyr Pro Gly Asn Ser Asn His Tyr His Ser Gly Gly Ser
50 55 60

Tyr His Gly Ser Gly Tyr His Gly Gly Tyr Lys Gly Lys Tyr Tyr Gly
65 70 75 80

Lys Ala Lys Lys Tyr Tyr Tyr Lys Tyr Lys Asn Ser Gly Lys Tyr Lys
85 90 95

Tyr Leu Lys Lys Ala Arg Lys Tyr His Arg Lys Gly Tyr Lys Lys Tyr
100 105 110

Tyr Gly Gly Ser Ser
115

<210> 17

<211> 435

<212> DNA

<213> Artificial Sequence

<220>

<223> construct for expression of Bioadhesive protein(mgfp-150) in
pMDG150 vector

<400> 17

atgggggggtt ctcacatca tcacatcat ggtatggcta gcgctaaacc gtcttaccg 60
ccgacctaca aagcaaaacc ctcgtagcca ccgacttata aggctaaacc tagctatcca 120
cctacgtaca aagctaaacc gtcttaccg ccgacttaca aagcaaaacc gtcctaccct 180
ccgacctata aggctaaacc gagttacccc ccgacttaca aaggctgcag ttctgaagaa 240
tacaagggtg gttattacc aggcaattcg aaccactatc attcaggtgg tagttatcac 300
ggatccggct accatggagg atataaggga aagtattacg gaaaggcaaa gaaatactat 360
tataaatata aaaacagcgg aaaatacaag tatctaaaga aagctagaaa ataccataga 420
aagggttaca agaag 435

<210> 18

<211> 151

<212> PRT

<213> Artificial Sequence

<220>

<223> Bioadhesive recombinant protein expressed in pMDG150 vector

<400> 18

Met Gly Gly Ser His His His His His Gly Met Ala Ser Ala Lys
1 5 10 15

Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr
20 25 30

Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser
35 40 45

Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys
50 55 60

Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Gly Cys Ser Ser Glu Glu
65 70 75 80

Tyr Lys Gly Gly Tyr Tyr Pro Gly Asn Ser Asn His Tyr His Ser Gly
85 90 95

Gly Ser Tyr His Gly Ser Gly Tyr His Gly Gly Tyr Lys Gly Lys Tyr
100 105 110

Tyr Gly Lys Ala Lys Lys Tyr Tyr Tyr Lys Tyr Lys Asn Ser Gly Lys
115 120 125

Tyr Lys Tyr Leu Lys Lys Ala Arg Lys Tyr His Arg Lys Gly Tyr Lys
130 135 140

Lys Tyr Tyr Gly Gly Ser Ser
145 150

<210> 19
<211> 531
<212> DNA
<213> Artificial Sequence

<220>
<223> construct for expression of Bioadhesive protein(mgfp-051) in
pMDG051 vector

<400> 19
atgggggggtt ctcatcatca tcatcatcat ggtatggcta gcatgactgg tggacagcaa 60
atgggtcgga ctctgtacga cgatgacgat aaggatcgat ggggatccga gctcgagatc 120
tgcagcagtt ctgaagaata caaggggtggt tattaccag gcaattcgaa ccactatcat 180
tcaggtggta gttatcacgg atccggctac catggaggat ataagggaaa gtattacgga 240
aaggcaaaga aatactatta taaatataaa aacagcggaa aatacaagta tctaaagaaa 300
gctagaaaat accatagaaa gggttacaag aagtattatg gaggtagcag tgaattcgct 360
aaaccgtctt acccgccgac ctacaaagca aaaccctcgt acccaccgac ttataaggct 420
aaacctagct atccacctac gtacaaagct aaaccgtctt acccgccgac ttacaaagca 480
aaaccgtcct accctccgac ctataaggct aaaccgagtt accccccgac t 531

<210> 20
<211> 179
<212> PRT
<213> Artificial Sequence

<220>

<223> Bioadhesive recombinant protein expressed in pMDG051 vector

<400> 20

Met Gly Gly Ser His His His His His Gly Met Ala Ser Met Thr
1 5 10 15

Gly Gly Gln Gln Met Gly Arg Thr Leu Tyr Asp Asp Asp Asp Lys Asp
20 25 30

Arg Trp Gly Ser Glu Leu Glu Ile Cys Ser Ser Ser Glu Glu Tyr Lys
35 40 45

Gly Gly Tyr Tyr Pro Gly Asn Ser Asn His Tyr His Ser Gly Gly Ser
50 55 60

Tyr His Gly Ser Gly Tyr His Gly Gly Tyr Lys Gly Lys Tyr Tyr Gly
65 70 75 80

Lys Ala Lys Lys Tyr Tyr Tyr Lys Tyr Lys Asn Ser Gly Lys Tyr Lys
85 90 95

Tyr Leu Lys Lys Ala Arg Lys Tyr His Arg Lys Gly Tyr Lys Lys Tyr
100 105 110

Tyr Gly Gly Ser Ser Glu Phe Ala Lys Pro Ser Tyr Pro Pro Thr Tyr
115 120 125

Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr
130 135 140

Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala
145 150 155 160

Lys Pro Ser Tyr Pro Pro Thr Tyr Lys Ala Lys Pro Ser Tyr Pro Pro
165 170 175

Thr Tyr Lys

<210> 21

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> construct for expression of Bioadhesive protein(mgfp-151) in
pMDG151 vector

<400> 21

atgggggggtt ctcacatca tcatcatcat ggtatggcta gcgctaaacc gtcttaccg	60
ccgacctaca aagcaaaacc ctcgtagcca ccgacttata aggctaaacc tagctatcca	120
cctacgtaca aagctaaacc gtcttaccg ccgacttaca aagcaaaacc gtcctaccct	180
ccgacctata aggctaaacc gagttacccc ccgacttaca aaggctgcag ttctgaagaa	240
tacaaggggtg gttattacc aggcaattcg aaccactatc attcaggtgg tagttatcac	300
ggatccggct accatggagg atataaggga aagtattacg gaaaggcaaa gaaatactat	360
tataaatata aaaacagcgg aaaatacaag tatctaaaga aagctagaaa ataccataga	420
aagggttaca agaagtatta tggaggtagc agtgaattcg ctaaaccgtc ttaccgccc	480
acctacaaag caaaaccctc gtaccacccg acttataagg ctaaaccctag ctatccacct	540
acgtacaaag ctaaaccgtc ttaccgccc acttacaaag caaaaccgtc ctaccctccg	600
acctataagg ctaaaccgag ttacccccg acttacaaa	639

<210> 22

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<223> construct for expression of Bioadhesive protein(mgfp-151) in
pMDG151 vector

<400> 22

Met Gly Gly Ser His His His His His His Gly Met Ala Ser Ala Lys

1